

LIST OF CURRENT CLAIMS

Claim 1 (Currently Amended). An apparatus for continuously singling stacks of loose sheet material, comprising:

a singling unit for singling a stack of loose sheet material;

a feeding device for moving stacked loose sheet material to be singled along a feeding path from a deposit position to a position in which the uppermost sheet of the stacked loose sheet material can be grasped by the singling unit; and

a stack inserting device for moving a stack of loose sheet material to be singled along an insertion direction into the deposit position,

wherein the feeding device has a first feeding element being movable at least along two axes relative to the singling unit, a first axis of the axes being parallel to the feeding path and a second axis of the axes being orthogonal to both the feeding path and the insertion direction, the first feeding element being moveable along the second axis to be inserted into the feeding path, and a second feeding element being uniaxially movable along the feeding path from a first position in which a stack of loose sheet material is insertable into the deposit position to a second position in which the uppermost sheet of the stack contacts the first feeding element.

Claim 2 (Previously Presented). The apparatus according to claim 1, wherein the first feeding element brings, by a uniaxial feeding motion, a stack of loose sheet material to be singled from the deposit position to the position in which the uppermost sheet of the stack can be grasped by the singling unit and, by being moved out of the feeding path, unites the stack to be singled with a stack to be fed located below the first feeding element.

Claim 3 (Previously Presented). The apparatus according to claim 1, wherein, the second feeding element brings, by a uniaxial motion on the feeding path, the stack to be fed from the deposit position to a position in which the uppermost sheet of the stack to be fed comes to lie below the first feeding element.

Claim 4 (Previously Presented). The apparatus according to claim 1, wherein the first feeding element assumes the position of the second feeding element by traversing a loop-shaped motion path and being inserted into the feeding path, and the second feeding element returns to the deposit position for receiving a stack to be fed on the feeding path.

Claim 5 (Previously Presented). The apparatus according to claim 1, wherein the second feeding element has depressions, and the first feeding element has a complementary formation for at least partly engaging the depressions.

Claim 6 (Previously Presented). The apparatus according to claim 1, wherein the first feeding element is moved into the feeding path below the stack of loose sheet material carried by the second feeding element.

Claim 7 (Previously Presented). The apparatus according to claim 1, wherein the second feeding element has a deposit surface which can be at least one of rotated, opened, horizontally shifted, and vertically shifted with respect to other components of the first feeding element.

Claim 8 (Previously Presented). The apparatus according to claim 1, wherein the second feeding element has a deposit surface with holes, and a plurality of opposing elements which can reach through the holes.

Claim 9 (Previously Presented). The apparatus according to claim 8, wherein the deposit surface with holes and the opposing elements can be shifted relative to each other for holding a stack of sheet material to be singled spaced from the deposit surface, and the opposing elements can engage the holes of the second feeding element to such an extent as to provide a substantially closed deposit surface for subsequent application of a loose stack of sheet material to be singled.

Claim 10 (Previously Presented). The apparatus according to claim 1, including one or more sensors configured to detect at least one of the presence of a stack fed by the second feeding element below the first feeding element, the last sheet of a stack to be singled, and a stack to be fed located in the deposit position.

Claim 11 (Previously Presented). The apparatus according to claim 1, wherein the first and second feeding elements are driven by stationary motors.

Claim 12 (Currently Amended). The apparatus according to claim 1, wherein feeding stacks of sheets to be singled to the feeding device may be carried out automatically and manually.

Claim 13 (Currently Amended). A method for continuously singling stacks of loose sheet material, comprising:

moving a stack of loose sheet material to be singled along an insertion direction into a deposit position by means of a stack inserting device; and

moving stacked loose sheet material to be singled along a feeding path from the deposit position to a position from which an uppermost sheet of the stacked loose sheet material is grasped and singled by a singling unit by means of a feeding device having a first feeding element being movable at least along two axes relative to the singling unit, a first axis of the axes being parallel to the feeding path and a second axis of the axes being orthogonal to both the feeding path and the insertion direction, the first feeding element being moveable along the second axis to be inserted into the feeding path, and a second feeding element being uniaxially movable along the feeding path from a first position in which a stack of loose sheet material is insertable into the deposit position to a second position in which the uppermost sheet of the stack contacts the first feeding element.

Claim 14 (Previously Presented). The method according to claim 13, comprising:

(a) feeding a stack of loose sheet material to be singled located on the first feeding element to the singling unit, by a feeding motion of the first feeding element on the feeding path from the deposit position to the position in which the uppermost sheet of the stack can be grasped by the singling unit,

(b) singling the fed stack sheet by sheet by the singling unit, the stack being fed by the first feeding element such that the particular uppermost sheet of the stack can be grasped by the singling unit,

(c) feeding a stack of loose sheet material to be fed located on the second feeding element to singling, by moving the second feeding element from the deposit position to a position in which the uppermost sheet of the stack to be fed is located below the first feeding element, and

(d) uniting the stack to be singled and the fed stack by moving the first feeding element out of the feeding path.

Claim 15 (Previously Presented). The method according to claim 14, wherein after the step of uniting the stacks, the following further steps are carried out:

(e) taking over the united stack of loose sheet material by the first feeding element, whereby the first feeding element assumes the position of the second feeding element by traversing a loop-shaped motion path and being inserted into the feeding path, and

(f) returning the second feeding element to the deposit position,

(g) depositing a further stack of loose sheet material on the returned second feeding element and then feeding said further stack.

Claim 16 (Previously Presented). The method according to claim 15, wherein the traversing of the loop-shaped motion path of the first feeding element comprises the following movements:

(h) perpendicular motion leading away from the feeding path,

(i) motion parallel to the feeding path in the direction of the deposit position to a position adjacent the second feeding element, and

(k) perpendicular motion leading to the feeding path.

Claim 17 (Previously Presented). The method according to claim 14, wherein the first feeding element engages depressions of the second feeding element when being inserted into the feeding path.

Claim 18 (Previously Presented). The method according to claim 14, wherein the first feeding element is inserted into the feeding path below the stack of loose sheet material carried by the second feeding element.

Claim 19 (Previously Presented). The method according to claim 13, wherein a deposit surface of the second feeding element is at least one of rotated, opened, horizontally shifted, and vertically shifted with respect to other components of the first feeding element.

Claim 20 (Previously Presented). The method according to claim 13, wherein a plurality of opposing elements of the second feeding element reach through holes of a deposit surface of the second feeding element to hold a stack of sheet material to be singled.

Claim 21 (Previously Presented). The method according to claim 20, wherein the opposing elements engage the holes of the second feeding element to such an extent as to provide a substantially closed deposit surface for subsequent application of a loose stack of sheet material to be singled.

Claim 22 (Previously Presented). The method according to claim 13, wherein the presence of a fed stack below the stack to be singled is recognized automatically, and, as a result of the recognition, the uniting of the two stacks is initiated.

Claim 23 (Previously Presented). The method according to claim 13, wherein at least one of a stack of loose sheet material to be fed located in the deposit position and the last sheet to be singled in a stack to be singled is recognized automatically.

Reply Under 37 C.F.R. § 1.116
Expedited Procedure
Technology Center 3600

Application No.: 10/563,246
Art Unit: 3653

Claim 24 (Previously Presented). A method for continuous sheet-by-sheet singling of stacks of loose bank notes, comprising:

utilizing the apparatus of claim 1 to single the stacks of loose bank notes in a processing apparatus, wherein the singled bank notes are automatically checked and deposited.